

The Ballarat Naturalist

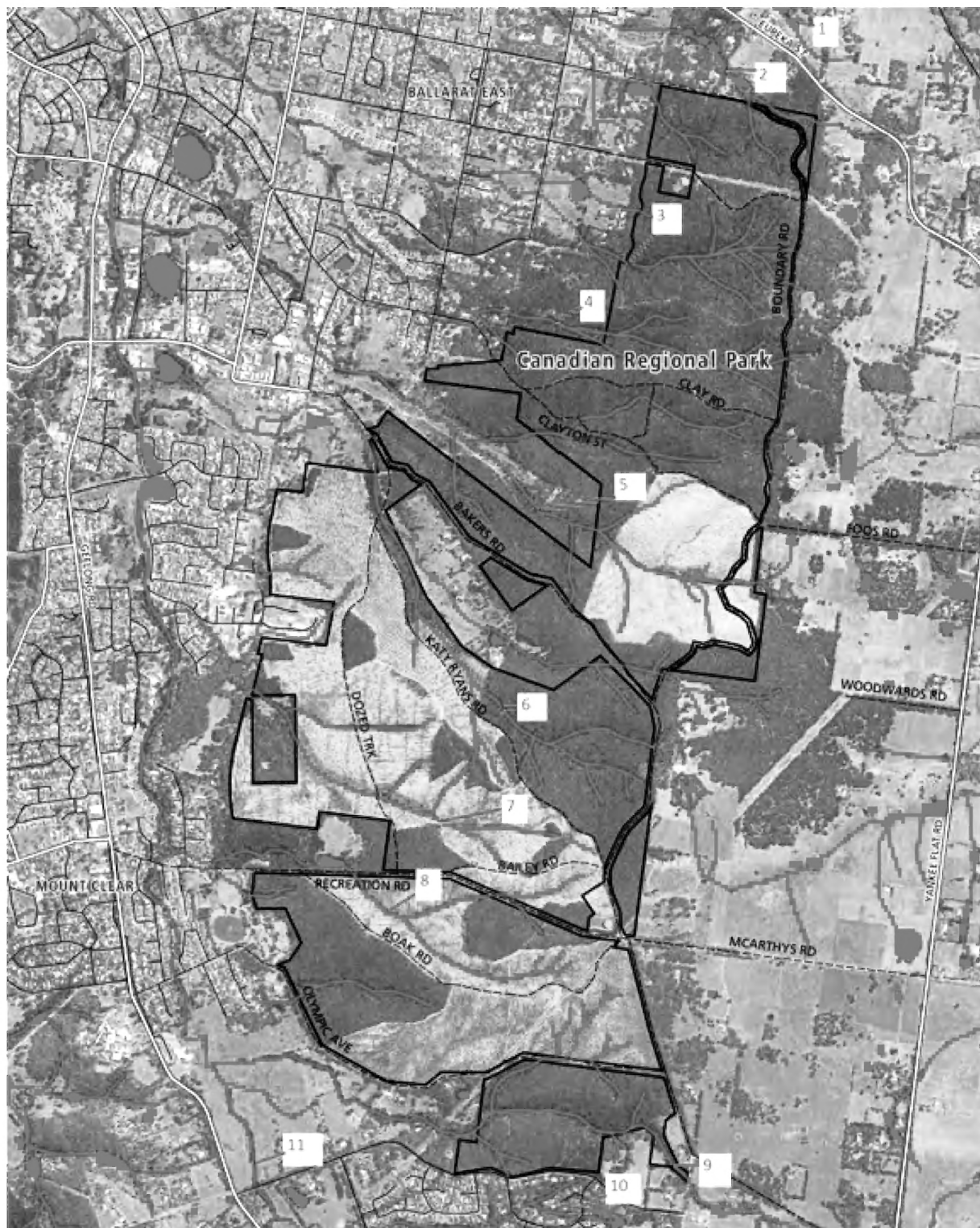
Volume 22 No.9

October 2022



“Little Creeks Do Matter”

Presented by Jeff Rootes Friday September 2, 2022



Eleven “Little Creeks” of that make up the catchment area of Ballarat, numbered north to south - reports in this issue!

“Little Creeks Do Matter”

At the Club meeting on Friday 2nd September 2022, our guest speaker was Jeffrey Rootes who presented an illustrated talk via Zoom. “Little creeks do matter” prepared us very nicely for our September field excursion. Jeff is well known to our club members as a founder of Friends of Canadian Corridor which successfully advocated for the establishment of the Woowookarung Regional Park in southeast Ballarat. Jeff is also Secretary of the Bunanyung Landscape Alliance which launched the Goldfields Little Creeks Restoration Strategy at a forum in December 2021. The purpose of the strategy “is for the restoration of headwater streams in the Goldfields region [with] the primary focus of the project [being] climate adaptation; cooling down streams and assisting stream fauna and other wildlife to adapt to a changing climate.”

Jeff started by reflecting on his interests in the environment originating from a childhood growing up in Maryborough where his Mum was a keen member of the Maryborough Field Naturalists Club, one of Victoria’s earliest FNCs. He also mentioned Alec Chisholm amongst Australia’s revered early field naturalists who, as historian Tom Griffiths says, “grew up in the Victorian gold town of Maryborough at the turn of the century [early 1900s], spent much of his childhood roaming among the mining scars, ironbarks, and wattles of the district’s dry, open forests.”

Jeff explained that the “Bunanyung Landscape Alliance” is an alliance of community members, Landcare and friends’ groups, networks, and associations. All are involved in promoting the health of biodiversity for the urban and rural catchments of the Moorabool, Leigh and Woody Yaloak rivers, all of which form the northern part of the Corangamite Catchment Area. He mentioned that another key priority was the Enfield to Wombat Bio Link and that the Alliance has already undertaken substantial mapping to understand where the opportunities lie for restoration which has the support of the CCMA.



“Little Creeks Do Matter strategy” as it is known, is the culmination of vision from Bunanyung Landscape Alliance with support from Victoria’s Natural Resources Conservation League. Funding and support have come from DELWP’s Regional Climate Adaption grant and there has been input and preparation from Federation University Australia ecologists.

Jeff then outlined the background to their thinking: “The effect of climate change on streams:

- ◆ Stream temperature influences the physical, chemical, and biological properties of streams
- ◆ Survival, habitat use by aquatic organisms
- ◆ Riparian vegetation crucial to moderating this [environment]
- ◆ We need to incorporate climate-adaptation into our restoration strategies”

Jeff then elaborated on historical aspects of the urbanisation of Ballarat as settlement expanded into areas previously bushland or rural cleared land.

“Streams in urban environments are often accompanied by increasing impervious surfaces and reduced evapotranspiration. This results in increased runoff and flood risk. In the past, approaches to dealing with this could be summarised as:

“Channel it, pipe it, get it out of there fast”



(Even today, such strategies cause many problems and many missed opportunities).

[In studying] current trajectories of Ballarat’s little creeks, [it is clear that] streams have been diverted and modified by mining, farming, and urban development.

[There has also been] climate adaptation”.



Jeff then proposed that **community concerns** about the urban creeks can be summed up under the following four headings and he added some comments.

- ◆ Fire
- ◆ Snakes – They prefer to avoid human contact, [helps if you] provide rodent control. Education about appropriate caution is important
- ◆ Exotic tree removal
- ◆ Floods - In some circumstances, a secondary channel to the main, vegetated creek might provide additional assurance that water can be removed successfully during peak flows.

Jeff talked about Ballarat City Council past planning processes that related to waterway planning. He referred to their strategy [“Today Tomorrow Together – The Ballarat Strategy Our Vision for 2040”] in which the council proposed the concept of **Living Corridors**.

[The map produced in the strategy included corridors for the main waterways within an 8 km radius of the CBD. These included the Canadian Creek Corridor and the Yarrowee Creek Corridor.]

Jeff introduced the idea of “**The Little creeks do matter. The eleven creeks of Canadian**”. They are:

Specimen Vale Creek
Warrenheip Gully
Grasstree Creek
Pennyweight Gully
Lal Lal Drain
Unnamed Creek #1
Unnamed Creek #2
Unnamed Creek #3 (known as Mr. Toms Creek)
Unnamed Forest Tributary
Unnamed Creek (Wattle Tree Creek)
Canadian Creek

Jeff classified the stream types for the 11 creeks [see attached map]. Green is the colour for heritage bluestone and brick, Red is the colour for piped [former streams].

Total length of all creeks.	43km
Piped	4.8km
Channeled Bluestone etc.	5.1km
Open creek	33km

Jeff then took us on a quick illustrated tour of some of the waterways in south-eastern Ballarat each with important messages on waterway planning and management. This provided us with a very pertinent introduction to the excursion to be held on the Sunday following.



Wattle Tree Creek Mt Helen: Wattle Tree Creek piping circa late 1970's - Why?

Sailor's Gully Creek, Mount Clear: [This] achieves climate adaptation, habitat for biodiversity and amenity for local citizens

Lal Lal drain: [Currently] Treeless, unshaded [but with] significant potential

Pennyweight Gully, Canadian: Straight, no meandering, then piped, will eventually receive very high runoff from impervious landscape, [and] likely to struggle to handle sediment load and peak flows.

Much more on some of these sites in our excursion report in this edition of The Ballarat Naturalist.

Jeff then posed an important question as urbanizing Ballarat expands into the surrounding landscapes and rural areas with growing population and development.



“Where to from here?”

The management of little creeks has many synergies with existing goals for the region...

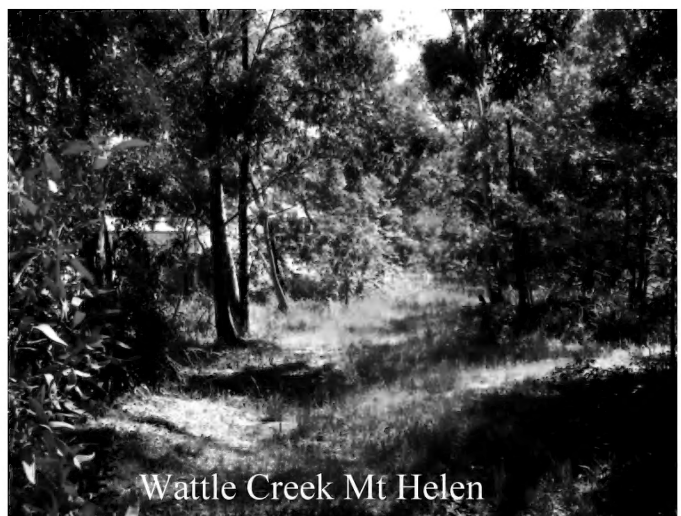
[We should]: continue to advocate for these principles to be incorporated into:

- ◆ Urban design and town planning
- ◆ Management of private (rural) land
- ◆ *Yarrowee River and Tributaries River Corridor Masterplan 2019/20*
- ◆ Apply the principles to some test sites
Monitor the outcomes of riparian restoration
- ◆ Change the Ballarat Planning Scheme rules to protect wetlands, flood plains, creeks, and the creek verges from inappropriate development.
- ◆ Work towards improving creek health with an absolute “no net creek biodiversity loss” as a starting point. Include a stated measurable biodiversity net gain for the creeks over the time of the goal.
- ◆ Require the Corangamite Catchment Management Authority **creek works permit process** to have a full and proper ecological assessment of a waterway and to sit equal to hydrological reports within the planning process.

The Field Naturalists Club is grateful to Jeff for raising these vital issues confronting Ballarat as it continues to grow rapidly.

Jeff provided us with some inspiration on how we can all have a positive influence on protecting and enhancing the biodiversity of our region.

Andy Arnold



Wattle Creek Mt Helen

References:

Tom Griffiths (1996) *Hunters and Collectors*

Nick Schultz and Natalie Cursio (2022) *Ballarat Goldfields Little Creeks Restoration Strategy*

Today Tomorrow Together - The Ballarat Strategy Our Vision for 2040 November 2014 Draft page 29

Excursion Report

“Little Creeks and Reserves Walk – the good, the bad and the ugly”

On **Sunday 4th September** our excursion was led by Jeff Rootes from the Bunanyung Landscape Alliance, and Friends of Canadian Corridor. Jeff, a local resident of this catchment area, led us on three different circuit walks at three separate locations within the Canadian Creek watershed. In keeping with his presentation at our September Club meeting, he described this as the **“Little Creeks and Reserves Walk – the good, the bad and the ugly”** because it was very demonstrative of features and conditions described in his earlier interesting talk. Twelve Club members gathered at 10am on Greenhill Road Mt Helen to commence the day’s activities. Jeff kindly provided us with customised maps of three locations visited:

1. Wattle Creek and ‘the Gorge’ including the Timbertop Reserve that borders a residential area, Greenhill former school site and parts of the declared Woowookarung Regional Park including a former water reserve area.

2. Sailors Gully on Hocking Avenue incorporating the Sailors Gully Neighbourhood Park and the Harry Lavery Reserve which fringes Canadian Creek on its eastern frontage flood plain.

3. Sparrow Ground Reserve with its connectivity to Pax Hill and the Woowookarung RP and to the surrounding area creek lines known as Pennyweight Gully and Grasstree Creek, tributaries of the Canadian Creek. (and eventually Yarrowee Creek).

At our starting point, **site 1**, Jeff began his commentary by talking about what he knew of the history of the area including the Woowookarung Regional Park. The Wadawurrung people continuously occupied this land over 30,000 years and many generations. The



Wadawurrung have long used this land as a source of many useful materials and foods and there is archaeological evidence of occupation, particularly along the creeks.

The residential area beside Timbertop Drive dates to the late 1970s and was an enlightened demonstration of good planning principles adopted by the then Shire of Buninyong with retention of grassed waterways and remanent and replanted bushland along the old drainage lines leading to Wattle Creek. These vegetated strips and a retention basin operate effectively as wildlife corridors with Jeff noting that koalas frequented the area. There were also patches of a matted grass, possibly a species of rice grass. Jeff described some 1934 aerial photos of the area which showed very few old trees and mentioned that there had been a timber tramway in the early days running from Bells Rd to the Mt Helen where it connected with what was then called the “Plank Road”.



Crossing back over Greenhill Rd we came across a colony of the Tall Greenhood (*Pterostylis melagramma*) in flower and on the side of a drain a specimen of the Horse Dropping fungus (*Pisolithus tinctorius*) coated in white mould (left).

Sitting beside Greenhill Rd was what appeared to be a quite large boulder of breccia/ conglomerate, its presence here defying any explanation. Walking through the Woowookarung RP Jeff explained how various portions of crown land including an old school site, a water reserve and sections of forest including former plantation leases were aggregated to create the park under legislation.



Tetrarrhena - a species of rice grass

This section of the park drained by Creek No. 9, “Unnamed Forest Creek” presented some significant challenges to managing the waterway. The buried pipeline carrying the water supply to Mt Helen crosses Creek No. 9 on an easement and in the past has attracted uncontrolled 4WD activity leading to serious erosion of the sides of the creek and erosion of much of the top-soil and even deeper subsoil damage causing serious siltation of the creek system. This area has now been fenced with robust gates to control this damage and a long-term solution is being investigated such as a bridge which will allow walking and cycling access over this creek also promoting its recovery and frontage revegetation with access for pipeline maintenance. As we returned to the cars a Painted Lady Butterfly was observed.



We drove to **Site 2** and after morning tea we started to explore the **un-named creek #7** on Jeff’s map and informally known as Sailors Gully Creek. 15 years ago, this area was converted from rural land to a new housing development.



The creek rises in the Woowookarung Regional Park and flows west down to Canadian Creek. Carefully designed to border house blocks which are along the north side of Hocking Ave.



Sailors Gully retention basin

This meandering creek and linked ponds acting as water retention areas is a great exemplar of how to incorporate water sensitive ideas into a subdivision. The other values were also obvious, enhanced biodiversity with aquatic in stream plants such as *Potamogeton*, *Typha* (Bulrushes) and Water Ribbons, and species of fringing sedges and rushes. Brown Tree Frogs (*Litoria ewingii*) were heard calling as we strolled beside the creek. Remnant trees have been left to shade the creek, supplemented with carefully selected planting with potential for further improvement because they have not been compromised by incompatible waterway engineering.

An area of cultural significance, the remains of a goldfields horse puddler with its small dam wall had been retained and was protected by the design of the allotments. Walking tracks and retained native vegetation link the residential area to the Harry Lavery Bushland Reserve and the floodplain of the Canadian Creek with well-established revegetated areas.

Lunch was eaten at the next **site 3, the Sparrow Ground Reserve**, where we were joined by Val before commencing the afternoon walk south down Richards St and along Pennyweight Gully. The Gully area west of Richards St still retains a shallow pond within the waterway but its outlet has been piped underground and the amenity of the open natural waterway has been lost.



Harry Lavery Bushland Reserve

Jeff mentioned that there are further concerns about the future of the pond which is utilised by Wood Duck and Black Duck, other waterfowl, and passerine birds; it may be the subject of a planning application involving loss of this wetland and necessitating further piping of the

creek to enable further subdivision into smaller blocks. We followed the buried pipe easement which above ground is a grassed drainage line with an engineered concrete pit breaking and exposing the piped section just before running under Kline St.

Not a thing to be proud of in this residential neighbourhood! West of Kline St the waterway emerges from the pipes and runs again above ground. The problem here is another apparently engineered solution which has resulted in an open and unshaded, dead straight waterway filled with broken quarry rock from another place; quite unsympathetic to area and wasting an obvious opportunity to create an attractive creek line as a local community asset. The waterway delivers Pennyweight Gully water to a very large retention basin with few aesthetically pleasing characteristics and a lost opportunity for a wetland to be developed in a large public open space despite probably costly excavation works.



Large retention basin excavation PW Gully:

Next, crossing Spencer St we were shown a newly landscaped section of this waterway parallel with Rodier St. This is probably best described as an unattractive street drain carrying large quantities of mobile sediment submerging and suffocating plant growth with broken polystyrene from the local area accumulating near the pipe under Rodier St. A very positive feature of nearby open space is that Ballarat City Council has established a footpath along an elevated section of the former railway, part of the “Bunny Trail” concept including restoring the rail bridge over Grasstree Creek and an appropriate “wheels sculpture” to acknowledge its former use.

Undisturbed sections of the former permanent way had remnant vegetation including good colonies of *Drosera aberrans* (Scented Sundew) which were in flower (right). Here we left the old railway embankment noting the remains of a very old post and rail fence and turned onto the next waterway, Grasstree Creek. The creek borders grazing land on its south side which in future will become part of a new subdivision of about 37 allotments.



Hopefully the creek environment will receive special attention in the planning process and avoid shortcomings so obvious on Pennyweight Gully.

The section of creek between Rodier and Kline Sts still retains much of its natural course but has many challenges if effective restoration is to be

achieved. There are many environmental weeds present, as shown above, but thankfully some remanent native vegetation providing patches of shade over the stream. The creek above Kline St bordering on its south - Sparrow Ground has been well restored by volunteers associated with that reserve.

Returning to Sparrow Ground we thanked Jeff for his revealing walk and can now appreciate his apt name for the experience he shared with us – **“the good, the bad and the ugly”** *Andy Arnold*

***Wildlife observed on the “Little Creeks” walk
recorded by Graeme Lunt:***

White-throated Tree-creeper
Magpie
Crimson Rosella
Bronzewing
Grey currawong
Grey Shrike-thrush
Spotted Pardalote
Pied currawong
Rainbow lorikeet
Galah
Eastern rosella
Little raven
Red wattlebird
Wood duck
Thornbill sp.
Pacific Black Duck
Mudlark
Sulphur-Crested cockatoo
Grey Kangaroo

Extra Excursions!!!!

Just in case you miss out on going to our regular excursions during October and November or simply can't get enough excursions then we have the solution:

Excursion to the Brisbane Ranges

Thursday October 13th

Leaving from outside Fed Uni in Gregory St at 9.30 am

OR meet at the Steiglitz Court house around 10.10 am.

We will be visiting Bert Boardman reserve, Lower stony creek reservoir and Anakie Gorge. Bring lunch supplies.

Excursion to the Illabarook area

Thursday November 17th.

Leave 9.30 am from Fed Uni in Gregory st.

Bring lunch.

Exploring both Illabarook and the Mt Mercer-Shelford Roadside Reserves

You can also be comforted by the fact that these outings are part of our revision of the Discovering Ballarat's Bushland book.

Preparation of Nomination for State Heritage Registration

The final stages of Nomination of Creswick Alluvial Goldfields Cultural Heritage Landscape - for Victorian Heritage Registration is underway. Providing vital help are heritage and mapping specialists Lorraine Huddle and Kevin Tolhurst. FNCB members have been coordinating efforts and gathering information on 10 major water races and 23 other historic places in the nominated Landscape south-east of Creswick.

Examples of key locations to be included in the registration:

Russels Dam, built in 1861, carried water to Humbug Hill



Ah Tan and Goldsmith's Water Race
near its source on the Great Divide



FNCB Members at site of the Mania Mens Garden, Creswick



Here's an exciting new initiative for our newsletter. It's called "Postcard from..." and is a short article about a place of interest that you have visited recently.

It could be local, within Victoria, somewhere in Australia, or overseas. The focus should be on nature and the environment, on topics which you think may be of interest to fellow field nats. To get the ball rolling

and to perhaps spark some inspiration, I've written about a recent trip north in my "Postcard from... the Sunshine Coast" – see page 22. Be as creative as you like and above all make it entertaining! Each postcard will be presented with a stamp or card design from the archives or you can supply your own. Images of your holiday snaps are also encouraged – but not too many – I recommend 2 or 3.

Articles of about 500 words would be most welcome. Send via email in Word format to the editor—see p. 24 for the address.



The Great Southern BioBlitz 2022 is Coming.

Dates to remember: 28th to 31st October

What is it?

The Great Southern BioBlitz is an opportunity for all in the Southern Hemisphere to record a snapshot of flora, fauna and fungi present during late spring. It runs on iNaturalist, accessible on computer or smartphone.



Ballarat Region participated in the inaugural GSB in 2020, and again in 2021. Each time our top six “Most observed species” were plants. What will they be this time?

Why Participate?

Just for fun! Perhaps use it as an opportunity to visit sites you are surveying for the new edition of *Discovering Ballarat's Bushland*. Or take a walk around your neighbourhood and see how many different species you can find. Weeds count too!

Emily has a couple of sites where the DELWP-mapped vegetation classes look errant, and she would like people to use the GSB as an opportunity to correct the record. Two examples are Mt Erip and part of Clarksdale. She would love a few people to join her at some point over the four days to cover a bit more ground. There may well be other areas too, like parts of Creswick RP/ SF that John Petheram would like a few people to join him for to undertake a survey. Elspeth may also have sites she'd like prioritised. More details at our October meeting.

How to participate?

Observe by photographing or taking sound recordings of whatever you can within the time frame of the BioBlitz: The observations can be uploaded to iNaturalist any time up to 14 days afterwards, but the earlier you can upload them the more chance they will have to be identified within the 14 days.

Identify other people's observations: This is a really useful activity that you can do from the comfort of your own home. Help out other people by adding identifications to what they have found.

Any questions?

If you haven't used iNaturalist, it is worth trying it out before the BioBlitz. iNaturalist has a good “Getting Started” page here: <https://www.inaturalist.org/pages/getting+started>

If you have other questions please send them to Vireya by email, and she will attempt to answer them in a short session at our next meeting.

Book Review: *Sea of Dangers* by Geoffrey Blainey

I recently finished reading an excellent book by historian Geoffrey Blainey entitled *Sea of Dangers: Captain Cook and His Rivals*. It tells the story of Cook's first voyage of 1769-70 which took in the transit of Venus from Tahiti, to the circumnavigation of New Zealand to the "discovery" and mapping of the entire east coast of New Holland, as it was known at the time.

Of interest is Blainey's claim, backed up by considerable evidence, that a French explorer, Jean de Surville in the vessel *St. Jean Baptiste* was off the coast of Sydney Harbour some months before Cook, having previously mapped parts of the north Island of New Zealand. This is quite a controversial claim which throws light on the relationship between England and France and the colonial aspiration of both countries in the late 16th century.

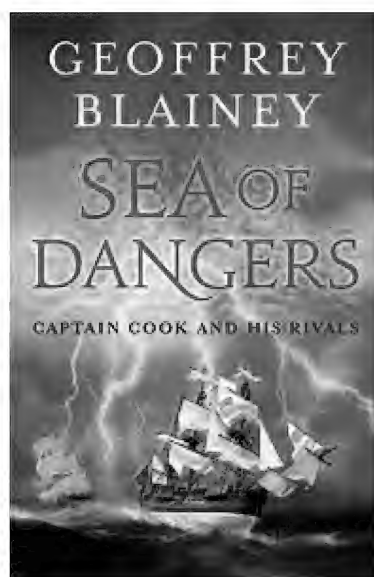
The standout fact from this very detailed and enlightening book was the achievement of botanists Joseph Banks and Daniel Solander. Banks, of course, was one of the major financiers of the trip, and it made sense that he gained enormous fame from the discoveries made. But, between them, these two scientists increased the number of known plant species by ONE FIFTH.

Consider that at the time, many thousands of plants were known, classified and named. To contribute, in one expedition, a further one fifth to the total is an outstanding task.

Many hours of work were involved in getting to where the plants were, then the task of collecting specimens, followed by examination and identification and then to preserve them in some form represents a huge amount of effort. All this on board a tiny ship without any of the modern accoutrements of science. Other discoveries were in marine life and zoology, including the kangaroo and many, many birds, not quantified by Blainey.

Banks went on to greater achievements in science generally, transforming Kew Gardens and becoming a kind of scientific guru of worldwide fame. He died some 50 years after nearly losing his life on a coral reef off the coast of north Queensland.

Solander, a former student of Carl Linneaus, remained a colleague and good friend of Banks and died not that long after returning from the antipodes, in May 1782. Credit should also go to the prolific Sydney Parkinson who sketched and painted many, many botanical and zoological specimens.



Bill Elder

**Excerpts from Club Meeting Minutes
September 2, 2022 held via Zoom**

Opening and Apologies

Attendance: President Margaret Rich welcomed 22 attendees to the meeting.

Apologies: Emily Noble & John Petheram.

Motion: That the Apologies be accepted.

Moved: C. Hall Seconded: C. Dalman Carried.

Presentation: “Little creeks do matter - creeks east and south of Ballarat” presented by Jeff Rootes from Bunanyung Landscape Alliance and Friends of Canadian Corridor.

Business Arising from Previous Club Meeting

Emily collated the hours volunteered by Club members over the last year (July 1 to June 30) and submitted them for inclusion in DEL-WP’s Volunteering Naturally 2022 report: 4,400 hours contributed by 23 FNCB members!

Val Hocking has offered to start learning the ropes of the role of newsletter editor for the club from Bill Elder. Vireya also volunteered to learn the ropes too so she can temporarily take over the role in the event of the primary editor going on holidays, being unwell, etc.

Business Arising from Correspondence:

Our current club banner is broken.

Motion: That a new club promotion banner be ordered from Office-works at a cost of \$95.

Moved: A. Arnold Seconded: C. Dalman Carried.

Discussed Judith’s idea of a new Rakali lobby group as a section of the Field Nats to avoid duplication of people resources.

Concluded that it would be preferable that Rakali be included in an umbrella protection group, such as Friends of Lake Wendouree Natural Environment and FNCB is already listed as one of six environmental groups under their banner. If a special Rakali group was formed, we would support but can’t lead it.—Judith to report this to the Rakali presentation on Tues 6th Sept.

Discussed adding our Club as a signatory to a letter to the Victorian Premier and Ministers requesting the banning of duck-shooting.

“Regional Victorians Opposed to Duck Shooting Inc.” have requested a response to their request by September 5. Agreed.

Motion: That the FNCB become a signatory to the letter above, and accordingly provide our Club logo to Regional Victorians Opposed to Duck Shooting Inc.

Moved: J. Bailey Seconded: B. Elder Carried.

Reports:

Treasurer's Report

Opening bal.: \$9,256.80

Income \$55.00 (renewed family membership)

Expenses: \$286.89

Closing bal.: \$9,024.91

Still to pay- Sept. Newsletter costs, new website cost once decided, FNCB banner \$95.00.

Motion: that the Treasurer's Report be accepted and tabled invoices be approved for payment.

Moved: Kathy Elder **Seconded:** Judith Bailey **Carried.**

Ideas Forum for habitat protection down the Eastern Biodiversity Corridor on August 14: Margaret R reported that 3 people attended, with Linda Zibell keen to promote 7 points to give focus to presentation to Ballarat City Council, including conservation, map development and working from Ballarat's 2014 plan. Andy noted that any reconciliation trail planning should be led by the Wathaurung Traditional Owners Aboriginal Corporation &/or BADAC.

Revision of Discovering Ballarat's Bushland: The next meeting is Tues 6th Sept. at Carol's home. Site Reports are gradually being submitted and volunteers are still needed to prepare more site descriptions. We are also discussing book layout, addition of small maps if others aren't available, etc.

City of Ballarat Biodiversity Policy workshop on August 15: Bill attended and was disappointed at flow of the meeting. Groups were asked to suggest how they could contribute to this policy and Bill began by saying our group had huge data and experience that could be called on at any time. Others however mainly reported grievances. Bill did report that he was encouraged by the meeting report received later and he could email a copy of this doc to any interested persons. Judith B, who also attended, commented that Council rules should enforce *must be* rather than *should be*, particularly regarding environmental protection.

New FNCB website host: Graeme is still exploring finding a host that doesn't have adverts on the web pages: this will incur a smallish annual cost. Graeme to contact George Fong: M. Rich to provide contact details.

General Business

Just in case you missed it in the September edition of *The Ballarat Naturalist*, the Committee is working towards returning to holding face-to-face Club Meetings in November when we hold our annual Stella Bedggood Memorial Lecture, with the ongoing opportunity to join the meeting via Zoom.

Show & Tell/ Field Reports

-Judith shared slides of her observations of the solar cycle chart and activity of sunspots 1950 – 2020 and found a relationship with them to El Nino and La Nina weather patterns.

-Sheree showed a video of a damselfly exhibiting unusual movements against reeds. Bill wondered if it was laying eggs. She was also intrigued by local frog calls- Southern Brown Tree-frog and Eastern Froglet.

- Val showed photos of a visit to Bert Boardman Reserve at Steiglitz, seeing several types of greenhood orchids including red-banded, plus gnat, mayfly, slaty helmet & blue caladenia orchids, an attractive orange grevillea in full flower and lots of white flowering dusty miller shrubs.

- Bill reported that a kookaburra, crimson rosellas and wood ducks have all been inspecting a hollow left in his large messmate tree.

-Graeme showed a photo of a wood duck family prostrate as if dead, as he walked past with his dogs.

- John G had a fleeting visit by a male common sparrowhawk to his house this week.

- Andy reported that Masked Lapwings are nesting again in his street, but on a better protected area than last year.

- Judith commented that Red-browed Finches that usually come annually haven't arrived yet.

Next Meeting: “Carbon sequestration in Creswick forests”: Discover the latest research in this presentation by Nina Hinko-Najera from University of Melbourne’s School of Forestry & Ecosystem Sciences, Creswick, followed by Ella Poulton from Parkville campus

When? Friday October 7th, 2022, 7.30pm via Zoom.

Meeting closed: 9.35 pm

Book Review: *Genesis* by Edward O. Wilson

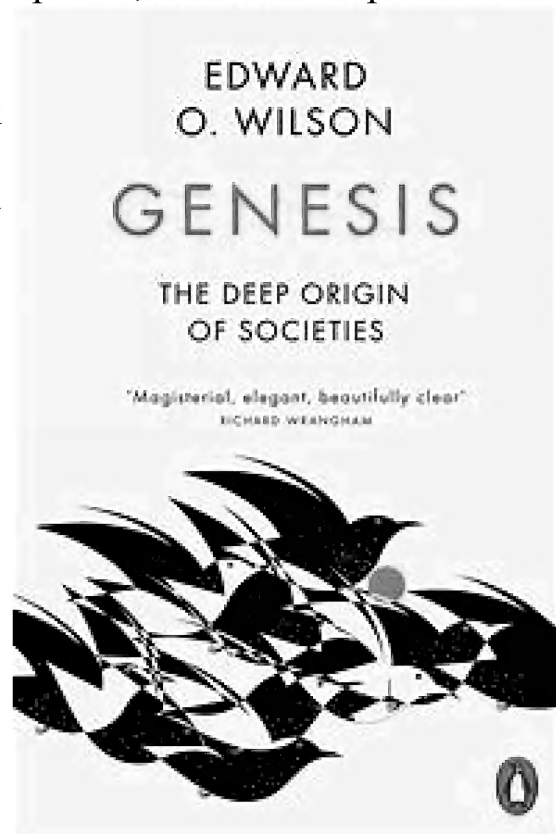
In this relatively new book (2019), renowned evolutionary biologist Edward O. Wilson offers a bold work of scientific thought and synthesis. Following a theme that has been central to his studies in biology over many years, Wilson explores societies and their origin, and human society in particular.

Taking inspiration from 17 nonhuman species, the author explains how they have formed advanced societies based on altruism, cooperation and the division of labour, qualities which are too often lacking in the world today. The explanation is easy to read and understand and helps to answer some of the most fundamental questions about how we came to be here and what our future as a species is likely to be.

“A full understanding of our history as far back as two hundred thousand years, to the emergence of fully formed *Homo sapiens*, holds the key to the long-term survival of humanity”. Wilson bases this statement on the fact that “every part of the human body and mind has a physical base obedient to the laws of physics and chemistry.” The story goes back even further as he seeks to unwind the processes that formed life itself and continue to drive biology today.

“Many of the chemicals and molecules circulating in our liquid (bodies) are roughly the same as in the primordial sea. Our thought and literature remain energized by the widespread belief that all of prehistory and history somehow served the purpose of placing us upon the Earth. Everything, it has been argued, from the origin of life 3.8 billion years ago was meant for us. The spread of *Homo sapiens* out of Africa and around the habitable world was somehow preordained. It was meant to establish our rule of the planet with the inalienable right to treat it as we please. That mistake is the true human condition.”

And the root cause of all of our woes from wars, diseases (COVID), other unnecessary deaths to pollution, poverty, and climate change which threatens the entire planet and every living thing.



Bill Elder

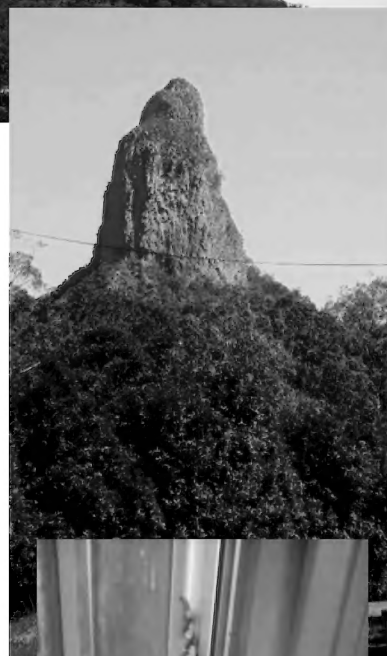
Postcard from...

the Sunshine Coast, Queensland.

In the first half of September 2022, I spent 7 days in Queensland, staying with my sister who lives not far from the village of Glass House Mountains, less than an hour north of Brisbane.

These mountains were named by James Cook as he sailed past heading north up the east coast of Australia. They are a prominent feature on the landscape, formed by combinations of geological processes from as far back as 30 million years. At that time, volcanic activity increased and erupting basalt lava flows filled the valleys. This created broad, gently sloping plains and shield-shaped mountains. 25 million years ago numerous dome-like plugs of magma were forced through the surrounding older rocks, filling volcanic vents or subsurface bulges (laccoliths). Over millennia, the soft sandstone rock has worn away while the mountains have resisted. The exposed plugs are the steep-sided peaks of the Glass House Mountains. This is Jinibara Country and there are some fabulous indigenous stories that explain the creation of this scenic and, in places, sacred landscape. Since then, erosion of the basalt has produced metres deep rich and fertile soils that help the rainforest to thrive, and nurture a wide variety of crops. The two photos opposite show the same mountain, Mt. Coonowrin seen from different compass points. It presents a different face from every place! (right)

Day one of my trip welcomed a visit from local reptile resident, a beautiful gecko on the front door frame. While on a trip to Gin Gin, about 2 hours drive north along the Bruce Hwy, we were treated to not only Wedge-tailed eagles, but also a White-bellied Sea-eagle that kept pace with our car for 500m or so.

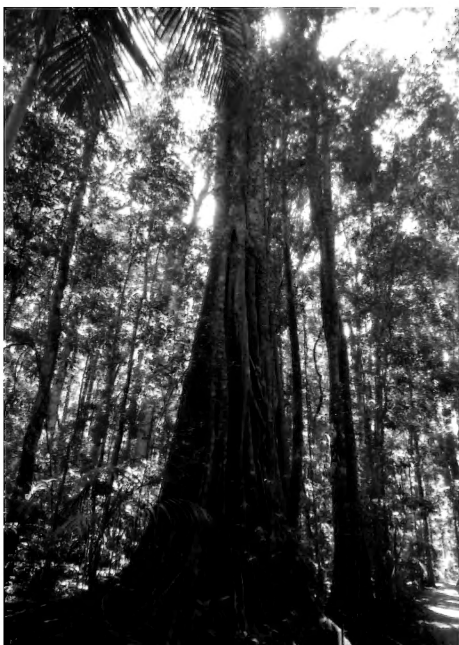


Robust Velvet Gecko
Nebulifera robusta

During my stay I travelled north a further 2 hours to the town of Gin Gin, west of Bundaberg, to visit relatives. We also spent a day exploring part of the Noosa National Park where we saw a couple of whales out in Tea Tree bay, and this Brush Turkey, a little bit closer, in the car park.

Agricultural areas did not disappoint, with plenty of sightings of unusual stock such as Bos and Brahman type cattle as well as sheep and goats. When it comes to crops, south-east Queensland is renowned for a number of commercial products including Macadamia nuts, Pineapples, Sugar Cane, Strawberries, Avacados and Mangoes. I can also report plenty of Canola seen from the plane on the way home.

Numerous unidentified butterflies, big and small plus Grey Butcherbird, Apostlebird, and way too many echidnas, wallabies and grey kangaroos as roadkill. I also took the opportunity to spend a couple of hours in the Mary Cairncross Scenic Reserve, Maleny, an historic and botanically significant place. It is a remnant of subtropical low-land rainforest, protected in late 1960. The daughters of Mary Thynne, nee Cairncross, gifted the land in 1941. Mary was a passion-



ate and active environmentalist from an early age. Her husband Andrew Thynne purchased the Maleny land where the reserve is situated in 1902, and it has not been developed since selection in 1878.

The Reserve represents an incredibly high level of biodiversity and is home to: 391 plant species – seven of these are listed as rare, vulnerable or near-threatened, 141 bird species, 68 species of mammals, reptiles and amphibians – eight of which are threatened and an as yet unspecified number of both invertebrate species and fungi.

It's a must-see destination for all field naturalists.

Excursions and Meetings coming up

October

Friday 7th: Presentation - “What influences seasonal C sequestration in the Wombat Forest?”.

This will be a joint effort from two presenters from Uni of Melbourne’s School of Forest and Ecological Science, Research Scientist Dr. Nina Hinko-Najera and PhD Candidate Ella Plumanns-Pouton.

Sunday 9th Emily Noble takes us to Clarksdale Bird Sanctuary.

Departure at 9.30am sharp from Gillies St as usual OR meet at the Clare Miller Environment Centre in the Sanctuary at 360 Linton-Piggoreet Rd, Linton at 10am.

Bring camp chairs, camera, binoculars, field guides, thermos, morning tea, lunch and afternoon tea, and dress to suit the weather.

Coming up...

The **2022 Stella Bedggood Memorial Lecture** is presented this year by Honorary Fellow, John Delpratt from the University of Melbourne who will tell us about Grassland restoration in Victoria’s Volcanic Plains. *Advanced warning—this will be a return to live, face-to-face conditions but it will also be available for viewing online if you prefer.*

And don’t forget the extra mid-month excursions planned during Oct and Nov as part of our update of “Discovering Ballarat’s Bushland” (see p. 13 for more details)

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Meetings - may continue to be held via Zoom.

Members will be kept informed of arrangements each month.

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